Polygyrid Land Snails, *Vespericola* (Gastropoda: Pulmonata), 3. Three New Species From Northern California

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Abstract. Three new species of polygyrid land snails from northern California are described: Vespericola sasquatch, from stream drainages tributary to the Salmon River, Siskiyou County; Vespericola embertoni, from Reeves Canyon, Mendocino County; and Vespericola rhodophila, from coastal Sonoma County.

INTRODUCTION

This is the third in a series of studies by us on the systematics of the western American polygyrid land snail genus *Vespericola* Pilsbry, 1939. In the first article of the series (Roth & Miller, 1993), we separated *Vespericola pilosus* (Henderson, 1928) from *Vespericola columbianus* (Lea, 1838), of which it had been considered a subspecies and showed that the distribution of *V. pilosus* is restricted to the San Francisco peninsula, California. We also demonstrated that *Vespericola orius* (Berry, 1933) is a species, not a subspecies of *V. columbianus*, and we described a new species, *Vespericola marinensis* Roth & Miller, 1993, from Marin County, California.

In the second article of the series (Roth & Miller, 1995), we redescribed *Vespericola megasoma* (Pilsbry, 1928), adding details of its reproductive anatomy, and restricted its type locality to the east bank of Prairie Creek, near the south end of Prairie Creek Redwoods State Park, Humboldt County, California. We also described the reproductive anatomy of *Vespericola eritrichius* (Berry, 1939) and *Vespericola karokorum* Talmadge, 1962. Additionally, we described a new species, *Vespericola klamathicus* Roth & Miller, 1995, from drainages adjacent to those of *V. karokorum* in the Klamath Mountains, California.

In a subsequent article (Cordero & Miller, 1995), one of us (WBM) assisted Alicia M. Cordero in describing the reproductive anatomy of *Vespericola shasta* (Berry, 1921), and in describing two new species, *Vespericola rothi* Cordero & Miller, 1995, and *Vespericola scotti* Cordero & Miller, 1995, from areas relatively close to but outside the distribution of *V. shasta*.

In this third article by Roth & Miller we describe three new species.

MATERIALS AND METHODS

Shell height and diameter are vernier caliper measurements and exclude the expanded lip of mature shells. Whorls were counted by the method of Pilsbry (1939:xi, fig. B). The density of periostracal setae was estimated by counting the number of setae per square millimeter on the shoulder of the body whorl, 0.25 whorl behind the aperture of adult specimens, at $30 \times$ magnification under a dissecting microscope with an ocular reticle. Three counts were taken per specimen and the mean (to the nearest integer) recorded.

Specimens for dissection and whole mounts of genitalia were prepared by the methods described by Roth & Miller (1993).

The following abbreviations are used: ANSP, Academy of Natural Sciences of Philadelphia; BR, senior author's collection, San Francisco, California; CAS, California Academy of Sciences; LACM, Los Angeles County Museum of Natural History; SBMNH, Santa Barbara Museum of Natural History.

SYSTEMATICS

POLYGYRIDAE Pilsbry, 1895

Vespericola Pilsbry, 1939

Vespericola Pilsbry, 1939:xvii. —Pilsbry, 1940:892-894. —Zilch, 1960:586. —Roth & Miller, 1993:135.

Type species: *Polygyra columbiana pilosa* Henderson, 1928 [= *Vespericola pilosus* (Henderson)], by original designation.

Vespericola sasquatch Roth & Miller, sp. nov.

(Figures 1–5)

Diagnosis: A large *Vespericola* with depressed-globose, almost imperforate shell, 5.8–6.25 whorls, erect, distant periostracal setae with forked bases, and usually a small parietal lamella. Penis medium-sized, slender, with anterior 50% enclosed in sheath; with short, conical, pointed verge 0.5–0.8 mm long; spermathecal duct massive, gradually tapering to a constriction at spermatheca.

B. Roth & W. B. Miller, 2000





Vespericola sasquatch Roth & Miller, sp. nov. Shell, holotype, SBMNH 143179, CALIFORNIA: Siskiyou County: along small stream entering Salmon River from north, 4.3 km E of Etna-Somesbar Road/California Highway 96 intersection at Somesbar (sec. 1 or 2, T. 11 N, R. 6 E, Humboldt Base and Meridian; USGS Forks of Salmon quadrangle [7.5-minute series, Topographic]). B. Roth, E. J. Kools coll., 17 May 1984. Top, apertural, and basal views. Diameter 16.0 mm.



Figures 4, 5

Vespericola sasquatch Roth & Miller, sp. nov. Drawings made from projections of stained whole mounts. Structures seen in transparency are shown by dotted lines. Scale line = 1 mm. Figure 4. Anterior part of reproductive system, paratype, SBMNH 78125, CALIFORNIA: Siskiyou County: along small stream entering Salmon River from north, 4.3 km E of Etna-Somesbar Road/California Highway 96 intersection at Somesbar (sec. 1 or 2, T. 11 N, R. 6 E, Humboldt Base and Meridian; USGS Forks of Salmon quadrangle [7.5-minute series, Topographic]). B. Roth, W. B. Miller coll., 10 April 1992. Figure 5. Penis and penial sheath cut open to show verge and pilasters, paratype, SBMNH 77923, same locality as the preceding, B. Roth, E. J. Kools coll., 17 May 1984. Abbreviations: at, atrium; cp, cut edge of penis; cs, cut edge of penial sheath; ep, epiphallus; go, genital orifice; ov, oviduct; pe, penis; pi, pilaster; pr, penial retractor; ps, penial sheath; pt, prostate; re, retentor; sd, spermathecal duct; sp, spermatheca; ut, uterus; va, vagina; vd, vas deferens.

Description of shell: Shell (Figures 1-3) large for the genus, depressed-globose, almost imperforate, of 5.8-6.25 whorls; base inflated. Spire low-domed, its sides weakly convex; whorls somewhat flattened, suture moderately impressed. Embryonic whorls 1.5-1.6; initial 0.2 whorl smooth; remainder of embryonic shell with crowded, irregular, papillose, radiating rugae. Early teleoconch whorls with fine, slightly retractive growth rugae and distant, erect or forwardly convex, acicular setae in convexforward, protractive, descending rows. Most setae forked at base, furcae pointing aperturally; many setae with broad, finlike basal extension abaperturally. Periostracum between setae radially wrinkled, somewhat scaly on first four whorls, smoother on whorls five and six. Periphery rounded. Base regularly setose, setae smaller than on spire, extending into umbilical crevice. Last whorl not markedly descending, constricted behind lip. Aperture broadly auriculate, peristome concave in profile, oblique, at angle of about 40° to vertical; lip expanded and strongly reflected, moderately thickened submarginally, most strongly turned backward at base. Inner end of basal lip reflected over narrow, obliquely entering umbilical crevice. Parietal callus granulose, free edge convex, with only a very small re-entrant below upper limb of peristome. Small, white, straight parietal lamella usually present, set on upper third of parietal callus, outer edge on line between upper and lower limbs of peristome. Shell tan, peristome pinkish tan.

Dimensions of holotype: Diameter (exclusive of expanded lip) 16.0 mm, height 9.3 mm, whorls 6.25.

Measurements and counts of material at hand: Range of adult shell diameter 13.5–16.0 mm (mean of five specimens including holotype, 15.0 mm); height 8.0–10.2 mm ($\bar{x} = 9.28$ mm); height/diameter ratio 0.58–0.66 ($\bar{x} = 0.618$); number of whorls 5.8–6.25 ($\bar{x} = 6.13$).

Description of soft anatomy: The holotype and five paratypes were dissected.

Living animal pinkish buff, darker and grayer on bodystalk. Mantle over lung clear buff, 25–40% maculated with black.

Atrium (Figure 4) of moderate length for the genus. Penis elongate-conical, with anterior, basal half enclosed in diaphanous sheath adnate to base. Penial retractor muscle inserted on epiphallus. Narrow retentor muscle_extending from penial retractor muscle at attachment on epiphallus to summit of penial sheath, from which other thin retentor fibers connect with parts of epiphallus and vas deferens. Sheathed part of penis about 4.0 mm long; protruding part 2.8–4.5 mm long. Short peduncular section of about 0.5 mm present between base of sheath and junction with atrium. Apex of penis containing short, conical, pointed verge, 0.5–0.8 mm long, through which seminal duct opens into penial chamber (Figure 5).

Spermathecal duct massive, tightly appressed to free

oviduct (which is smaller in diameter and branches from it), with one deep convolution below spermatheca, cylindrical-conic, about 6.0 mm long, about 2.0 mm in diameter at junction with oviduct, gradually tapering to 1.0 mm constriction at base of spermatheca. Spermatheca varying from oblong-ovate to teardrop-shaped, about 4.0 mm long, with bluntly pointed tip.

Type material: Holotype: SBMNH 143179 (shell and dissected anatomy), CALIFORNIA: Siskiyou County: along small stream entering Salmon River from north, 4.3 km E of Etna-Somesbar Road/California Highway 96 intersection at Somesbar (sec. 1 or 2, T. 11 N, R. 6 E, Humboldt Base and Meridian; USGS Forks of Salmon quadrangle [7.5-minute series, Topographic]). B. Roth, E. J. Kools coll., 17 May 1984.

Paratypes: SBMNH 77923 (2), from same locality as holotype; SBMNH 78125 (3) from same locality as holotype, B. Roth, W. B. Miller coll., 10 April 1992. Additional paratypes, ANSP, BR and CAS.

Referred material: CALIFORNIA: Siskiyou County: Scott River Road, W of Hotelling Gulch. M. K. Gausen coll., November 1998 (BR 2133); near lower Salmon River, NE1/4 sec. 2, T. 11 N, R. 6 E, Humboldt Base and Meridian. T. Hacking coll., 22 June 1999 (BR 2230).

Remarks: Vespericola sasquatch is distinguished from most other species in northwestern California by its large size, large number of whorls, and depressed-globose shape. The combination of large shell and small parietal tooth is unique to V. sasquatch, but in one of the adult specimens examined the parietal tooth is absent. Vespericola karokorum Talmadge, 1962, from streams draining into the Klamath River near Orleans, Humboldt County, differs in having fewer, more distantly spaced, and longer periostracal setae, many of which have recurved tips. The embryonic whorls of V. karokorum are more coarsely papillose. The inner lip is reflected over the umbilicus to about the same degree in both species; but the base of V. sasquatch is somewhat more flattened, that of V. karokorum more inflated. Vespericola karokorum has an acicular verge, about 3.4 mm long; the verge of V. sasquatch is short and conical, 0.5-0.8 mm long.

The vegetation at the type locality is mixed woodland with Douglas fir (*Pseudotsuga menziesii*), canyon oak (*Quercus chrysolepis*), bigleaf maple (*Acer macrophyllum*), and madrone (*Arbutus menziesii*). Vespericola sasquatch was found under logs on the ground, particularly near the stream bed. Other mollusks found with V. sasquatch at the type locality included Prophysaon andersoni (Cooper, 1872), Monadenia fidelis salmonensis Talmadge, 1954, and Ancotrema sp., cf. A. voyanum (Newcomb, 1865).

Etymology: Sasquatch, from the Salish language: a hairy, anthropoid being said to inhabit northwestern



Figures 6-8

Vespericola embertoni Roth & Miller, sp. nov. Shell, holotype, SBMNH 143178, CALIFORNIA: Mendocino County: tributary ravine to Reeves Canyon, on W side of U.S. Highway 101 at milepost 54.60 (3.9 road mi N of Outlet Creek bridge), W. B. Miller coll., 7 April 1990. Top, apertural, and basal views. Diameter 15.4 mm.

North America, including the Klamath Mountains. For purposes of the American Fisheries Society list of the common names of mollusks (Turgeon et al., 1998) and other administrative uses, we propose the name "sasquatch hesperian."

Vespericola embertoni Roth & Miller, sp. nov.

(Figures 6-10)

Diagnosis: A large *Vespericola* with depressed-globose, very narrowly umbilicate shell, 5.4–6.1 whorls, sparse periostracal setae, and sometimes a small parietal lamella. Penis elongate-conical, with anterior 60% of length enclosed in sheath; with short, conical, pointed verge 1.0 mm long; spermathecal duct massive, swelling to a diameter of 2.0 mm before tapering to a constriction at base of spermatheca.

Description: Shell (Figures 6-8) large for the genus, depressed-globose, very narrowly umbilicate, of 5.4-6.1 whorls; base inflated. Spire low-domed to broadly conical, its sides straight or weakly convex; whorls flattened, suture moderately impressed. Embryonic whorls 1.4-1.8; initial 0.1 whorl smooth; remainder of embryonic shell with crowded, irregular, papillose, radiating rugae. Postembryonic sculpture of low, retractive rugae and dense, sharp granulation with collabral trend. Periostracum bearing sparse, moderately long, acicular setae in distant, steeply descending rows; 3-4 setae/mm² on shoulder of body whorl, erect or curving away from direction of coiling, occasionally forked at base, usually with finlike abapertural basal extension. Periostracum between setae sharply granulose and finely wrinkled, with a few fine, raised spiral lirae on shoulder of whorl. Periphery rounded, sometimes more sharply curved at shoulder. Base tumid, densely setose with setae shorter than on spire, papillose where setae worn off. Last whorl not markedly descending, constricted behind lip. Aperture broadly auriculate; peristome concave in profile, oblique, at angle of 35–45° to shell axis; lip expanded and reflected, lightly to moderately thickened submarginally. Inner part of basal lip narrowed, weakly deflected forward, end dilated backward over narrow umbilicus. Parietal callus granulose, free edge convex, with shallow re-entrant below upper limb of peristome. Small, white, convex-forward parietal lamella present in about two-thirds of all adult specimens examined. Shell tan; lip pinkish tan.

Dimensions of holotype: Diameter (exclusive of expanded lip) 15.4 mm, height 9.5 mm, whorls 6.0.

Measurements and counts of material at hand: Range of adult shell diameter 13.2–16.6 mm (mean of 25 specimens including holotype, 14.95 mm); height 8.0–10.0 mm ($\bar{x} = 9.14$ mm); height/diameter ratio 0.57–0.66 ($\bar{x} = 0.611$); number of whorls 5.4–6.1 ($\bar{x} = 5.85$).

Description of soft anatomy: The holotype and eight paratypes were dissected.

Color of living animal pinkish buff, darker and grayer on body-stalk. Mantle over lung clear buff, 20–40% maculated with black.

Atrium (Figure 9) of moderate length for the genus. Penis elongate-conical, with anterior, basal portion enclosed in thin sheath adnate to base. Penial retractor muscle inserted on epiphallus. Narrow retentor muscle extending from penial retractor muscle at attachment on epiphallus to summit of penial sheath, from which other thin retentor fibers form connections with parts of epiphallus and vas deferens. Sheathed part of penis in holotype about 5.5 mm long; protruding part about 3.6 mm. In mature paratypes, sheathed part varying from 5.0 to 6.2 mm, with a mean of 5.6 mm; protruding part varying from 3.0 to 4.8 mm, with a mean of 4.1 mm. Mean ratio of protruding length to sheathed length about 0.8. Slender



Figures 9, 10

Vespericola embertoni Roth & Miller, sp. nov. Drawings made from projections of stained whole mounts. Structures seen in transparency are shown by dotted lines. Scale line = 1 mm. Figure 9. Anterior part of reproductive system of paratype, SBMNH 77888, CALIFORNIA: Mendocino County: tributary ravine to Reeves Canyon on W side of U.S. Highway 101 at milepost 54.60 (3.9 road mi N of Outlet Creek bridge), B. Roth, W. B. Miller coll., 19 November 1989. Figure 10. Penial complex of paratype, SBMNH 77888, with apical portion of penis opened to show verge and pilasters; same locality as the preceding, W. B. Miller coll., 7 April 1990.

peduncular section of about 1.4 mm present between base of sheath and junction with atrium. Apex of penis containing short, conical, pointed verge 1.0 mm long and 0.4 mm wide at base (Figure 10). Seminal duct opening into penial chamber at tip of verge.

Spermathecal duct massive, tightly appressed to free oviduct (which is smaller in diameter and branches from it), cylindrical-conic, about 5.5 mm long, about 1.4 mm in diameter at junction with oviduct, widening to a maximum diameter of 2.0 mm before tapering to a 0.5 mm constriction at base of spermatheca. Spermatheca oblong-ovate in fully mature specimens, often flattened on side

apposed to prostate/uterus and narrowly cylindrical in less mature individuals, about 5.5 mm long, with rounded tip.

Type material: Holotype: SBMNH 143178 (shell and dissected anatomy), CALIFORNIA: Mendocino County: tributary ravine to Reeves Canyon, N of Willits, on W side of U.S. Highway 101 at milepost 54.60 (3.9 road mi N of Outlet Creek bridge), W. B. Miller coll., 7 April 1990.

Paratypes: SBMNH 77888 (8), from same locality as holotype. Additional paratypes, ANSP, BR, CAS.



Figures 11-13

Vespericola rhodophila Roth & Miller, sp. nov. Shell, holotype, SBMNH 000000, CALIFORNIA: Sonoma County: China Gulch at crossing of Kruse Ranch Road, 1.1 road km from California Highway 1, Kruse Rhododendron State Reserve. W. B. Miller, B. Roth coll., 17 November 1989. Top, apertural, and basal views. Diameter 13.2 mm.

Referred material: CALIFORNIA: Humboldt County: Richardson Grove State Park (BR 1816). Mendocino County: just south of Longvale (CAS 052365); Reeves Canyon S of Longvale along US Highway 101 at milepost 53.91, in redwood stump (BR 336); Reeves Canyon, in ravines off US Highway 101, 7.8 mi N of Willits, at mileposts 54.60 and 53.94 (SBMNH 77999); Reeves Canyon, on W side of US Highway 101, 7.8 mi N of Willits, at milepost 54.11, along tributary ravine, under logs and in old stumps (SBMNH 77866).

Remarks: A parietal lamella is variably present or absent. The single specimen from Richardson Grove, Humboldt County, lacks a lamella. It has 2–3 periostracal setae/mm², compared to 3–4 setae/mm² in the type lot.

Vespericola embertoni is distinguished anatomically from other species by its short, conical, pointed verge at the apex of a slender, elongate-conical penis sheathed basally for about half to two-thirds of its length, and by a massive spermatheca and spermathecal duct complex as large or larger than the penial complex.

The large, depressed shell, sparse setation, very narrow umbilicus, and granular surface texture distinguish V. embertoni from most other species in northern California.

The type lot was collected in a stream gully in secondgrowth redwood forest. The predominant tree species along the riparian corridor was tan oak (*Lithocarpus densiflora*), with Douglas fir (*Pseudotsuga menziesii*) and California bay (*Umbellularia californica*) also prominent. Other land mollusks found at the type locality included *Haplotrema minimum* (Ancey, 1888), *Monadenia infumata* (Gould, 1855), and *Helminthoglypta arrosa pomoensis* A. G. Smith, 1938.

Etymology: The species is named for Kenneth C. Emberton, in honor of his innovative research on the family Polygyridae. For purposes of the American Fisheries Society list of the common names of mollusks (Turgeon et

al., 1998) and other administrative uses, we propose the name "Reeves Canyon hesperian."

Vespericola rhodophila Roth & Miller, sp. nov.

(Figures 11-16)

Diagnosis: A medium-sized *Vespericola* with depressedglobose, almost imperforate shell of 5.5–5.8 whorls; periostracal setae about 30–36/mm². Penis either completely enclosed by sheath or with upper 10–20% swollen and protruding; with 1.5 mm, cylindrical-conic verge with membranous, lateral flaps and tubular ventral groove forming outlet of seminal duct.

Description: Shell of medium size for the genus, depressed-globose, almost imperforate, of 5.5-5.8 whorls; base inflated, solid-looking. Spire broadly conic, its sides weakly convex; whorls somewhat flattened, suture shallowly impressed. Embryonic whorls 1.6, sculptured with crowded, radially elongate, blunt papillae that on the second whorl tend to align in radiating rows separated by shallow grooves. Early neanic whorls with fine, slightly retractive growth rugae and rather sparse, erect or gently curving, acicular setae in protractive, descending rows. Setae not obviously forked at base; some setae with finlike basal extension abaperturally. Periostracum between setae radially wrinkled and irregularly granulose. Setae closer together, shorter, and more regularly spaced on subsequent whorls, 30-36/mm² on body whorl. Periphery rounded, broadest above middle of whorl, somewhat sloping toward base. Base densely and regularly setose. Last whorl not markedly descending, sharply constricted behind lip. Aperture broadly auriculate, peristome concave in profile, oblique, at angle of about 45° to vertical; lip expanded and reflected, most strongly at base, moderately thickened submarginally. Umbilical crevice extremely narrow, oblique. Basal lip straight; inner lip nar-



Figures 14-16

Vespericola rhodophila Roth & Miller, sp. nov. Drawings made from projection of stained whole mounts. Scale line = 1 mm. Figure 14. Anterior portion of reproductive system of holotype, SBMNH 00000, CALIFORNIA: Sonoma County: China Gulch at crossing of Kruse Ranch Road, 1.1 road km from California Highway 1, Krusc Rhododendron State Reserve. W. B. Miller,

rowed, weakly curved forward, and dilated so that it encroaches on, and nearly covers, umbilicus from left side. Parietal callus granulose, free edge strongly convex, swinging well to left of umbilicus, with shallow sinus below upper limb of peristome. Moderate-sized, white, straight parietal lamella usually present near middle of parietal callus. Shell light reddish brown; peristome pinkish tan, with whitish callus thickening.

Dimensions of holotype: Diameter (exclusive of expanded lip) 13.2 mm, height 9.0 mm, whorls 5.5.

Soft anatomy: The color of living animals is pinkish buff, darker and grayer on the body-stalk. The mantle over the lung is clear buff, 20–40% maculated with black.

The holotype and 13 paratypes were dissected; an additional five specimens from Salt Point State Park were also dissected.

The atrium (Figure 14) is of moderate length for the genus.

The penis is swollen, banana-shaped, with a bulbous apex, its anterior, basal portion enclosed in a thin sheath adnate to the base, and the apical protruding part of wider diameter than the sheathed part. The penial retractor muscle is inserted on the epiphallus. A narrow retentor muscle extends from the penial retractor muscle at its attachment on the epiphallus to the summit of the penial sheath, from which other thin retentor fibers form connections with parts of the epiphallus and vas deferens.

The sheathed part of the penis in the holotype is about 6.0 mm long; the protruding part is about 2.5 mm. In the mature paratypes, the sheathed part varies from 4.4 to 6.5 mm, with a mean of 5.8 mm; the protruding part varies from 2.0 to 5.0 mm, with a mean of 3.3 mm. The mean ratio of protruding length to sheathed length is about 0.6.

There is a slender peduncular section of about 1.5 mm between the base of the sheath and the junction with the atrium.

The apex of the penis contains a short, tongue-shaped, verge 1.0 mm long and 0.2 mm wide at its base, equipped for the apical two-thirds of its length with a narrow, ventral, longitudinal groove flanked by a thin membranous flap on each side, ending at the apex with an open groove about 0.4 mm long, which forms the outlet of the seminal duct (Figure 15). The inner wall of the penis consists of a reticular pattern of closely appressed papillae (Figure 16).

The spermathecal duct is massive and short, appressed

4

B. Roth coll., 17 November 1989. Figure 15. Lateral, ventral, and dorsal views of verge of paratype SBMNH 77951. Figure 16. Anterior portion of reproductive system of paratype, SBMNH 77951, with apical portion of penis opened to show verge and internal papillae; same locality as the preceding, W. B. Miller, B. Roth coll., 6 October 1990.

to the free oviduct (which is smaller in diameter and branches from it); it is cylindrical-conic, about 3.0 mm long, with a diameter of about 1.5 mm at its junction with the oviduct, tapering gradually to a 0.5 mm constriction at the base of the spermatheca.

The spermatheca is oblong-ovate in fully mature specimens and narrowly cylindrical in less mature individuals, about 3.3 mm long, with a rounded tip.

Type material: Holotype: SBMNH 00000 (shell and stained whole mount of reproductive system), CALIFOR-NIA: Sonoma County: China Gulch at crossing of Kruse Ranch Road, 1.1 road km from California Highway 1, Kruse Rhododendron State Reserve. W. B. Miller, B. Roth coll., 17 November 1989.

Paratypes: SBMNH 77860 (4), from same locality as holotype. SBMNH 77951 (10), along China Gulch creek at crossing of Plantation Road, 0.9 km from California Highway 1, Kruse Rhododendron State Reserve. W. B. Miller, B. Roth coll., 6 October 1990. Additional paratypes, ANSP, BR, CAS.

Referred material: CALIFORNIA: Sonoma County: Kruse Rhododendron State Reserve, below parking lot (SBMNH 75030); Miller Creek, at crossing of California Hwy. 1 (first deep hairpin turn N of Gerstle Cove Campground), Salt Point State Park (BR 1672, BR 1712, WBM 7861).

Remarks: In the material at hand, adult shell diameter ranges from 11.9 to 13.7 mm (mean of 25 specimens including holotype, 13.02 mm); height, 8.2 to 9.9 mm ($\bar{x} = 8.96$ mm); height/diameter ratio, 0.64 to 0.76 ($\bar{x} = 0.688$); number of whorls, 5.2 to 5.8 ($\bar{x} = 5.54$).

In some specimens, the body whorl is pale straw-colored rather than reddish brown.

Vespericola rhodophila is distinguished anatomically from other species by its banana-shaped penis with a bulbous apical part usually protruding from the basal, sheathed part. The short, grooved verge with membranous lateral flaps somewhat recalls the spoon-shaped verge of *V. megasoma* but is not as stout.

The species is found under logs in riparian woodland.

Etymology: Gr., *rhodos*, rose, + *philos*, lover, with reference to the Western Azalea (*Rhododendron occidenta-le*) which is a prominent component of the understory within its range. For purposes of the American Fisheries Society list of the common names of mollusks (Turgeon et al., 1998) and other administrative uses, we propose the name "azalea hesperian."

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